Chapter 8

DISTRIBUTIONAL EFFECTS OF THE VALUE-ADDED TAX

I. Introduction

The most frequent criticism of a value-added tax, as of any sales tax, is that the distribution of the tax burden by income group would be unfair. As noted in Chapter 5, two aspects to this criticism can be identified: (1) the absolute burden of a value-added tax on low income individuals and families, and (2) the relative burden of the value-added tax at various income levels.

A comprehensive or broad-based value-added tax imposed at a uniform rate, the type described in Chapter 7, would place a significant tax burden on low income groups. Moreover, it would be regressive; that is, the amount of tax paid as a percentage of income would be greater at the lower income levels than at the higher because individuals at low income levels consume a larger percentage of their income than those at higher income levels. Moreover, persons in the higher income groups spend a higher percentage of their incomes on services, some of which, such as expenditures on foreign travel, education abroad, and personal services rendered in the home, cannot be reached by a value-added tax.

II. Some Underlying Assumptions

The view that a value-added tax would burden the poor and be regressive is based on the standard assumption that the tax would be shifted forward to consumers through price increases. If a value-added tax causes a direct and uniform increase in costs affecting all competing firms, immediate price increases can be expected under usual pricing conditions and methods, given a monetary policy that permits or "ratifies" these price increases.

A general increase in the price level can occur only if the appropriate accommodative adjustments occur in the total supply of money (or its velocity). In the face of an unchanged nominal or money value of the gross national product, the price level cannot rise in response to the tax, and either wages and other factor incomes or the level of output must decline. It is reasonable to assume that to prevent any decline in real output, the monetary adjustments necessary to allow firms to pass the tax forward will be made. Accordingly, the tax burden can be assumed to rest "on consumers" in the sense that it would be proportional to consumer spending on goods and services included in the taxable base.

Another underlying assumption (sometime implicit) is that the appropriate basis for comparing value-added tax burdens among various individuals and families is current income. Some experts criticize this approach on the grounds that lifetime or "permanent" income,

rather than the current year's income, should be used to measure a family's living standard over its lifespan. On a lifetime income basis, a value-added tax would be less regressive, and perhaps even proportional, because consumption tends to be a uniform proportion of lifetime or permanent income at all income levels, except for those who leave estates and thus do not consume all of their lifetime income. In any particular year, however, for families in a given income class, current income may differ from permanent income because of: sudden and unexpected windfalls, such as the receipt of gifts or bequests; reduced earnings caused by the temporary loss of employment or illness; or youth or old age.

To the extent that consumption is determined by permanent, rather than current income, consumption will not be a constant percentage of current income at all levels. In any given year, for example, low-income families may have consumption expenditures in excess of their income for that year, and high income families may consume less than current income. Thus, the regressivity of the tax is probably overstated with reference to current income. Still, it is the current year's income that in large part determines the current living standard and the sum out of which most taxes are paid. Moreover, the current year's income is usually regarded as the most practical basis for the comparison of value-added tax burdens at various income levels. Despite its limitations, it is used in this chapter.

III. The Alternative Solutions

Whether the absolute burden of a value-added tax on the poor and the regressivity of the tax are objectionable is, in the first instance, a value judgment. Nevertheless, most would agree that the poor should not be subjected to any significant tax burden and that the overall distribution of the Federal tax system should not be regressive. Of these two elements, the absolute burden of the value-added tax on the poor is the more serious problem, since the tax would deprive those persons of the income necessary to maintain a minimum standard of living. In comparison, the regressivity of a value-added tax over other income ranges can be offset by adjustments in the income tax rates; a progressive tax structure does not require each of the taxes in that structure to be progressive or even proportional. This chapter considers four alternatives for dealing with the problems of the burden of the tax on low income families and its regressivity. In evaluating these alternatives, the distributional effects are based on 1983 levels of income and patterns of spending, and the expenditure and revenue effects of the alternatives are based on 1988 levels of income and expenditure. (As explained in Chapter 9, the Internal Revenue Service considers 1988 to be the first full year for which a value-added tax could be effective.)

The distributional results and figures presented in this chapter are classified by family economic income class. As explained in Appendix 4-A to Volume 1, Overview, economic income is a comprehensive measure of income that is intended to approximate the standard definition of income, consumption plus changes in net worth. It includes

forms of income that are not subject to tax, such as tax-exempt interest from state and local bonds and government transfer payments. It also measures more accurately certain other forms of income, such as real interest income. This broader measure of income, therefore, provides a better yardstick than adjusted gross income for evaluating the abilities of families to pay taxes and for comparing tax burdens by income class. (The small number of families with negative economic income are excluded from the results because this unusual situation, typically associated with large capital or operating losses, is not relevant for assessing the distributional burden of the value-added tax.)

A. Adjustments in Transfer Payments

Some government-provided transfer payments, such as social security and food stamps, are automatically indexed to reflect changes in the cost of living. If imposition of a value-added tax caused the price level to increase, the indexed transfer payments would also rise to adjust for the effect of the tax on prices. Under the indexing provisions of current law, the burden of the value-added tax on low income families would be reduced by the automatic adjustment of transfer payments. This alternative would not eliminate the burden of the tax on those low income families who received either no or only modest amounts of indexed transfers.

In 1983, there were nearly 14 million families and individuals with economic incomes below $10,000. Of these, 12 million received some form of governmental transfer payments; 2 million did not receive any transfer payments. Almost 10 million of these families and individuals received one or more types of benefit that is already indexed for cost of living changes; the effect of the value-added tax on prices would automatically be reflected in higher benefits under these programs. Approximately 2 million families and individuals with economic incomes less than $10,000 received only non-indexed transfer payments. Therefore, a total of 4 million of these low income households would not benefit from the automatic indexing of transfer payments.

Social security payments are the most widespread of these indexed transfer payments, going to 7 million families and individuals, or one-half of those with economic incomes below $10,000. Other indexed programs are food stamps, supplemental security income, and government pensions; these programs reach a total of 7 million low income units, over half of which also receive social security benefits. Not all government income maintenance systems are indexed, including some programs financed at least in part by the Federal government, such as unemployment compensation and aid to families with dependent children, as well as direct welfare relief provided by state and local governments. While these nonindexed transfers could conceivably be adjusted to reflect the effect of the value-added tax on prices, this would involve additional expenditures by state and local, as well as the Federal, government.

Since only about 80 percent of consumption expenditures would be subject to the broad-based tax, it can be expected that a 10 percent value-added tax would cause the consumer price index (CPI) to rise by about 8 percent. The distributional consequences of indexing transfer payments are illustrated in Table 8-1 and Figure 8-1 for a 10 percent value-added tax. The percentages show value-added tax payments as a percent of economic income for various economic income classes. For expositional convenience, illustrations of distributional effects are calculated for a 10 percent value-added tax. For lower rates of tax, monetary magnitudes would be correspondingly lower. For purposes of comparison, the distributional effects of a broad-based or comprehensive value-added tax of the type described in Chapter 7 levied in the absence of indexing are also shown. It is important to emphasize that this indexing of transfer payments would be automatic under current law. Thus, barring any change in current law indexing provisions, the bottom line in Table 8-1 and Figure 8-1 may be a more accurate description of the actual distributional burden of a broad-based value-added tax than is the upper line. The indexing of transfer payments would reduce, but not eliminate, the burden of the value-added tax on low income families and individuals. This is true because not all low income families receive indexed transfers, and in any given year, some low income families have consumption expenditures in excess of their income. As shown in the last column of Table 8-1, the indexing of transfers under current law would absorb about 11 percent of the revenue from the comprehensive value-added tax.

B. Zero Rating of "Necessities"

Though many studies of distributional burdens have shown that a broad-based sales tax is regressive if levied at a single rate, a 1981 study by the Organisation for Economic Cooperation and Development, "The Impact of Consumption Taxes at Different Levels of Income," shows that the value-added taxes in seven European countries, with their exclusions and multiple rates, are generally not regressive, except at high income levels. Even the comprehensive value-added tax base described in Chapter 7 does not include all consumer expenditures on goods and services; rents on residential housing, for example, would be excluded from the tax base. A second alternative for reducing the burden of the tax on low income families would exclude additional goods and services from the tax base. If this approach were used in combination with the indexing of transfers, it would provide some families and individuals with more relief than others. That is, zero-rating would eliminate tax on some goods for all taxpayers. Indexing of transfers would insulate transfer recipients from the burden of tax on goods that are not zero-rated. Thus, zero rating of commodities might be done in lieu of adjusting transfers. To prevent transfers from being indexed to reflect the value-added tax, the tax would have to be excluded from the consumer price index used for indexing transfers.

This alternative would identify those taxable commodities on which lower income families and individuals spend a large proportion of their income and remove those expenditures from the tax base by zero

Table 8-1
Distribution of Value-Added Tax Burden:
Broad-Based Tax and the Effect of Indexing Transfer Payments
(Tax Rate of 10 Percent)

	Family Economic Income Class (in thousands of dollars) 1/								
	$0 - 10	10 - 15	15 - 20	20 - 30	30 - 50	50 - 100	100 - 200	200 & over	Relative cost of indexing transfers 2/
	(Value-Added Tax Paid as a Percent of Economic Income)								
Value-added tax on broad base without adjustment of indexed transfers...	14.2	9.2	7.5	6.1	5.0	3.9	3.0	1.8	--
Alternative:									
Value-added tax on broad base with adjustment of indexed transfers...	9.6	6.9	6.0	5.2	4.5	3.6	2.9	1.8	11.0

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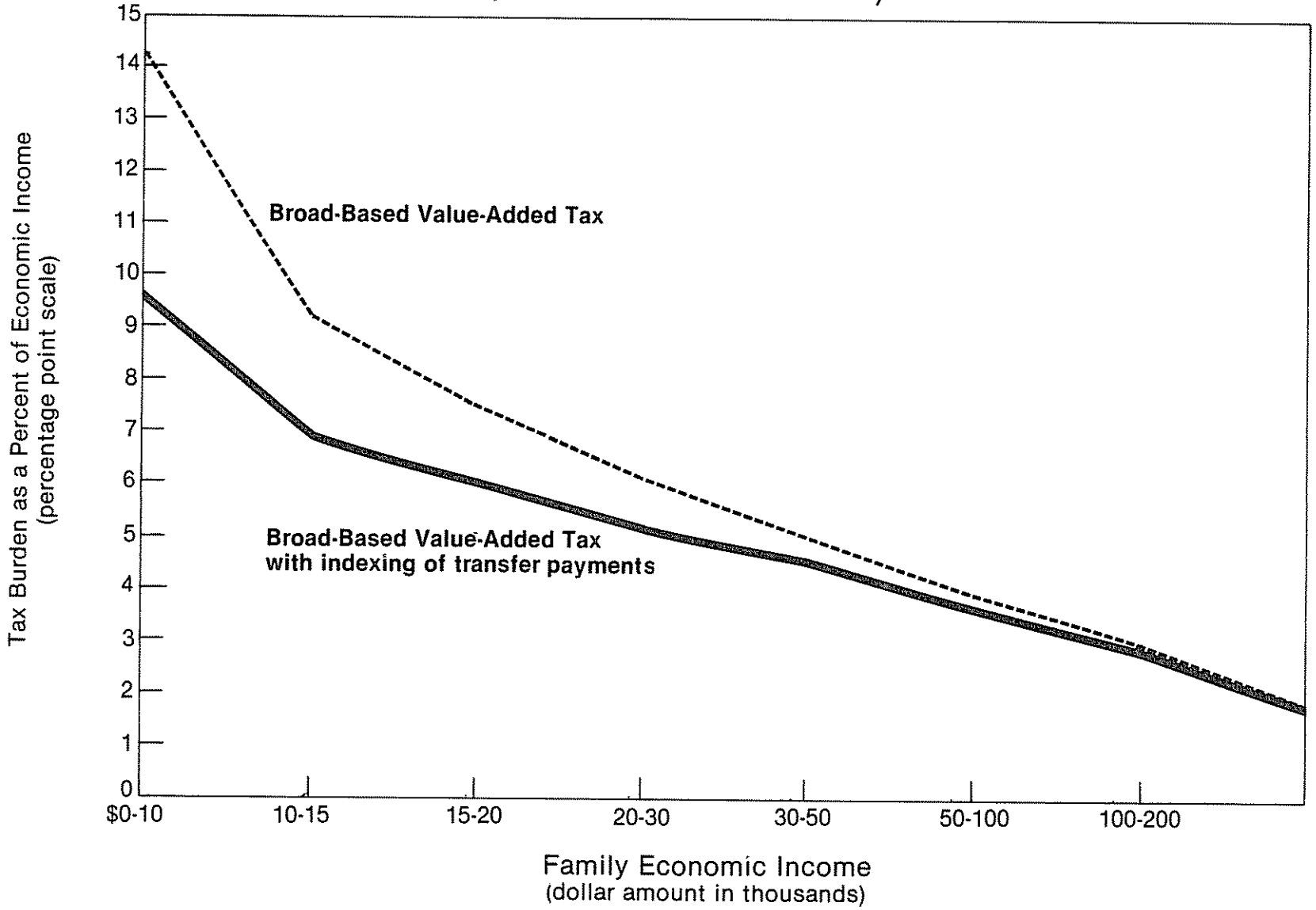
1/ Restricted to families with nonnegative income.

2/ The cost of the indexing alternative is expressed as a percentage of the revenue from a value-added tax on the comprehensive base (as described in Chapter 7) at 1988 levels.

Figure 8-1

EFFECT OF INDEXING TRANSFER PAYMENTS ON THE DISTRIBUTION OF VALUE-ADDED TAX

(Tax Rate of 10 Percent)



rating them. That is, no tax would be charged on their sale, but the firm selling the zero-rated commodities would be entitled to a credit or refund for the tax paid on its purchases that are related to the production and sale of the zero-rated commodities. Thus, the zero-rated commodities would be freed of any value-added tax. Consumer expenditures on the goods and services identified in the remainder of this section are regressive; that is, as a percentage of income, expenditures decline as income rises. Zero rating these items would reduce both the burden of the tax on lower income groups and the regressivity of the tax.

1. **Food.** More than one-half of the states exempt food prepared at home (but not restaurant meals) from retail sales taxation. With a retail sales tax, of course, exemption frees the exempt item of all retail sales tax. Expenditures on food prepared at home exhibit a regressive pattern, constituting a higher percentage of income in the lower income groups than in the middle and upper income levels. On the basis of data derived from the Bureau of Labor Statistics, 1980-1981 Consumer Expenditure Survey (hereafter referred to as the CES), families with economic income of less than $10,000 spent 32 percent of their before-tax income on home-consumed food. Thus, zero rating of home-prepared food would remove a substantial portion of the burden of the value-added tax from the families in the lowest economic income group. By comparison, those with economic income between $20,000 and $30,000, spent 11 percent, and those with economic income of over $200,000 spent less than 1 percent of their income on home-prepared food. The effect of zero rating expenditures on food is illustrated in Table 8-2 and Figure 8-2. For purposes of comparison, the distributional burden of a broad-based value-added tax with no indexing is also shown.

Though, the exclusion of food would address some of the distributional objections to a broad-based value-added tax, there are a number of difficulties with this approach that policy makers should consider:

(a) Excluding food would substantially reduce the revenue yield of the tax. State experience with retail sales taxes indicates that the states lose from 15 to 20 percent of their sales tax revenue if food is exempt; zero rating of food would reduce the base of a Federal value-added tax by about $349 billion at 1988 levels of expenditures, or, according to the last column in Table 8-2, by about 14 percent of the comprehensive base described in Chapter 7. Excluding food has a relatively larger impact on the states' tax base because, unlike the value-added tax described in Chapter 7, most state retail sales taxes do not include services. Because zero rating of food removes the food expenditures of the middle and upper income groups from the tax base, as well as the expenditures of the poor, much of this erosion in the base is unnecessary to achieve the objective of lessening the burden of the tax on lower income families and individuals. Nearly 90 percent of the erosion in the base is from expenditures on food by those with economic incomes above $10,000. By comparison, this group accounts for 92 percent of all consumption.

Table 8-2
Distribution of Value-Added Tax Burden:
Broad-Based Tax and the Effect of Zero Rating Food and Other Expenditures
(Tax Rate of 10 Percent)

	Family Economic Income Class (in thousands of dollars) 1/								
	$0 - 10	10 - 15	15 - 20	20 - 30	30 - 50	50 - 100	100 - 200	200 & over	Relative cost of zero rating 2/
	(Value-Added Tax Paid as a Percent of Economic Income)								
Value-added tax on broad base without adjustment of indexed transfers...	14.2	9.2	7.5	6.1	5.0	3.9	3.0	1.8	--
Alternatives:									
1. Value-added tax on broad base without adjustment of indexed transfers and with food prepared at home zero rated.....	11.0	7.3	6.0	5.0	4.1	3.3	2.7	1.8	14.5
2. Value-added tax on narrow base without adjustment of indexed transfers 3/.....	8.9	5.9	4.8	4.1	3.3	2.7	2.3	1.7	28.8

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1/ Restricted to families with nonnegative income.

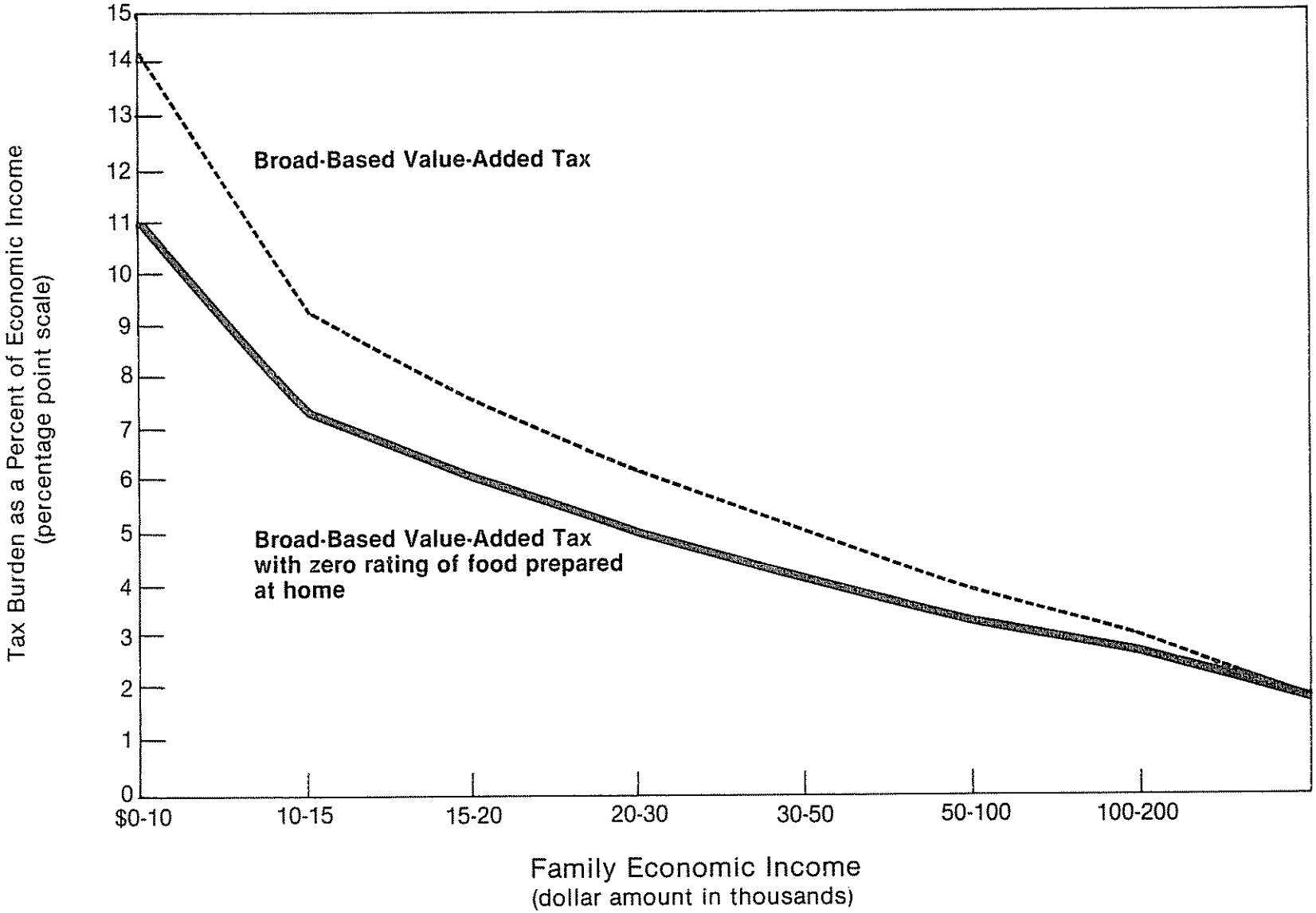
2/ The cost of zero-rating is expressed as a percentage of the revenue from a value-added tax on the comprehensive base (as described in Chapter 7) at 1988 levels.

3/ Narrow base provides for zero rating expenditures on home-prepared food, new housing, prescription drugs and medicine, household energy, and water and sanitation services.

Figure 8-2

EFFECT OF ZERO RATING FOOD ON THE DISTRIBUTION OF VALUE-ADDED TAX BURDEN

(Tax Rate of 10 Percent)



(b) Zero rating of food would favor those individuals and families with relatively strong preferences for food, and it may create economic distortions by increasing purchases of food relative to those of taxed goods.

(c) Even if home-prepared food is exempt, restaurant meals are almost always taxed under state retail sales taxes. A few jurisdictions, however, exempt meals below a certain price. But drawing the line between a restaurant meal and home-prepared food is very troublesome, particularly with the popularity of fast food takeout restaurants and delicatessen and prepared food departments in grocery stores. The argument for taxing restaurant meals is that commercially-prepared meals involve "luxury" spending. Actually, according to the SASS-based estimates, spending on restaurant meals also exhibits a regressive pattern by income class, though it is less regressive than expenditures for food prepared at home. A policy of excluding only restaurant meals below a certain price would be arbitrary and would create problems with billing customers. For example, would separate bills be required for each member of a group eating together to take advantage of the exclusion? The problems with restaurant meals illstrate the inherent objections of trying to solve the regressivity problem by excluding certain categories of expenditure from the value-added tax.

(d) Zero rating of food would materially complicate the administration and operation of a value-added tax. The distinction between zero-rated food purchases and other taxable commodities is not clear cut. There inevitably would be problems of delineating food from other commodities. For example, there is no sharp distinction between soft drinks, which might be taxable, and various fruit juices and drinks, which might not be. If ice cream is taxable, it may be difficult, and inappropriate, to differentiate it from tax-exempt frozen yogurt. Zero rating of food would raise many borderline issues of this sort. In each case, the tax administrator must specify the dividing line between taxable and non-taxable commodities and the food store clerk must be aware of these distinctions if the proper amount of tax is to be charged.

(e) In addition to these delineation problems, the compliance problems of sellers and the control problems of the Internal Revenue Service (IRS) would be substantially increased by zero rating of food. Very few stores sell only food items. If food were zero rated, large supermarkets would have to ensure the correct application of the tax at the cash register, and they would be required to keep separate records of food and nonfood sales. There would be a tendency for firms to overstate the portion of total sales consisting of food, and the audit task of the IRS would be made more difficult. State experience with the retail sales tax indicates that checking on the food exemption absorbs a substantial portion of the time of sales tax auditors.

2. **Zero rating of other commodities.** As shown by Table 8-2 and Figure 8-2, zero rating of food would not remove the entire value-added tax burden from the lowest income groups. According to the estimates from the CES, approximately two- thirds of the expenditures of the families with economic incomes under $20,000 consists of purchases of goods and services in the comprehensive base other than home-prepared food. The burden on low income groups could be reduced further by excluding three other categories of consumer expenditures.

(a) Housing costs. As noted in Chapter 6, housing expenses cannot be fully taxed because of the inability to reach imputed rent on owner-occupied housing. Since residential rents on either tenant-occupied or owner-occupied housing would not be taxed, the burden of the broad-based value-added tax on the poor would be less than what it would be with full taxation of housing rents. The comprehensive value-added tax base described in Chapter 7, however, does include purchases of newly-constructed, as well as renovated, housing. Complete exclusion of all housing costs, including those of new construction and renovation, would reduce the burden on the poor still more. This could be accomplished by zero rating sales of newly-constructed housing and the repair and renovations of existing housing. As with zero rating of food, however, this reduction in the tax base would be at the expense of a substantial loss of revenue from expenditures by persons in the middle and upper income groups and would cause inequity and economic distortions. Zero rating the sales of new housing would reduce the value-added tax base by about $170 billion, or 7 percent of the comprehensive base. About 94 percent of the revenue loss issueated with this base erosion would be from expenditures on new housing (plus repair and renovation) by those families with economic incomes above $10,000.

(b) Drugs and medicines. Though most medical care would be either zero rated or exempted even under the comprehensive value-added tax base, zero rating of prescription drugs and medicines would further reduce the burden of the value-added tax on low income families. Zero rating of prescription drugs and medicine, which would reduce the tax base by about $16 billion, would create fewer compliance and administrative problems than in the case of food because this category is clearly delineated by the need for a physician's prescription.

Zero rating of nonprescription drugs, however, would create troublesome operational problems. Nonprescription medicine is sold by a great variety of stores handling other goods as well, and it is not clearly delineated from other commodities. State and local governments that have exempted nonprescription drugs from retail sales taxation have encountered both compliance and audit problems.

(c) Energy, water, and sanitation services. Consumer spending on electricity, gas, fuel oil, and water and sanitation services could also be zero rated; of course, this would conflict with recent proposals for an energy tax, either to raise revenue or discourage the consumption of energy. For those families with economic income of less than $10,000, this category of expenditures represents about 6

percent of total consumption expenditures. Zero rating of expenditures on these items for all consumers would reduce the value-added tax base by about $160 billion or by 7 percent of the comprehensive base; about 90 percent of the revenue loss associated with this base erosion would be from those families with economic income above $10,000.

The bottom line in Table 8-2, as well as Figure 8-3, illustrates the distributional effects of zero rating expenditures on home-prepared food, new housing, prescription drugs and medicines, household energy, and water and sanitation services. The effect of zero rating these expenditures is to reduce substantially the burden of the tax on those with economic income below $10,000 and to reduce, but not eliminate, the regressivity of the value-added tax.

In general, any attempt to lessen the absolute burden of a value-added tax on the poor and reduce the regressivity of the tax by excluding various categories of goods and services from the tax cannot fully solve the equity problem, and almost inevitably would cause discrimination, loss of economic efficiency, and unnecessary loss of tax revenue. As shown in the last column in Table 8-2, zero rating the expenditures discussed in this section would reduce the revenue from a comprehensive value-added tax by nearly 30 percent. It would materially complicate the tasks of both taxpayers and the IRS, and perhaps pave the way for evasion of the tax.

C. Reimbursement for Value-Added Tax

Under another alternative for lessening the burden of the tax on the poor, no effort would be made to zero rate the purchases of necessities under the value-added tax. The value-added tax would apply to the comprehensive base of consumer expenditures, as described in Chapter 7. The burden of the value-added tax on the poor would be reduced by reimbursing those at the lower income levels for a specified amount that would be roughly equal to the amount of value-added tax paid. The objective would be to free from the value-added tax the consumption necessary to sustain a minimum standard of living. Minimum or essential consumption could be defined by reference to the poverty income level. In other words, the poverty level of income could be considered to be equivalent to the consumption required to attain a minimum standard of living.

This approach would be an alternative to the indexing of transfers; that is the effect of the value-added tax would be excluded from the consumer price index used to index transfers. If transfer recipients were allowed a credit, on top of having transfers indexed, they would be left more than whole.

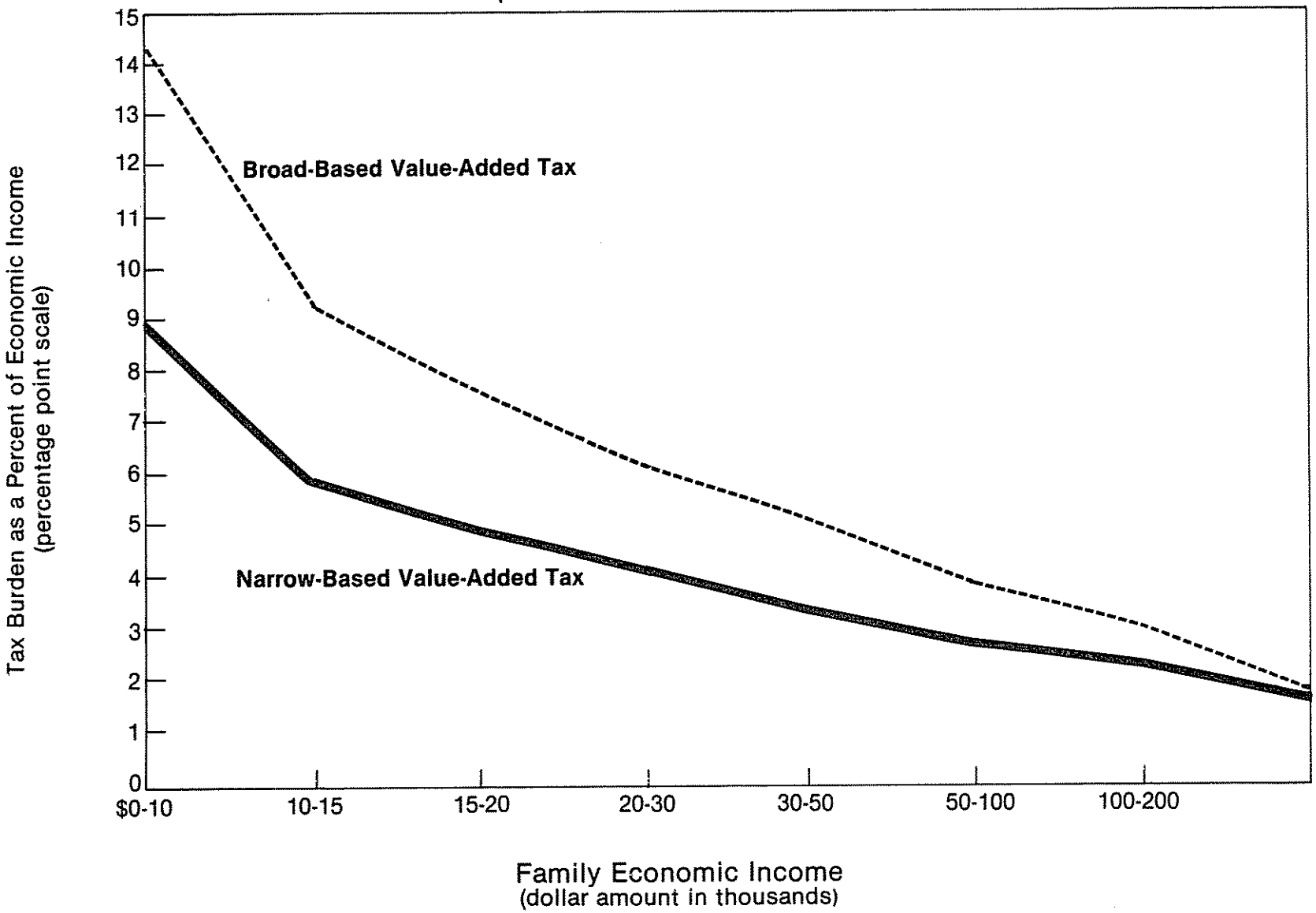
This reimbursement could be implemented in either of two ways:

(1) A credit could be provided against one's Federal income tax liability for a sum representing the value-added tax borne on the consumption necessary to sustain a minimum standard of living. This

Figure 8-3

COMPARISON OF TAX BURDEN RESULTING FROM BROAD- AND NARROW-BASED VALUE-ADDED TAXES

(Tax Rate of 10 Percent)



amount would be taken as a credit on Federal income tax returns in the same fashion as income taxes withheld and the earned income tax credits are credited against one's income tax liability.

If the amount of the credit exceeded one's income tax liability, it would be refundable, as is true of the earned income credit and of income tax withholding. Although a nonrefundable credit would reduce the regressivity of the tax in some income ranges, it would not help those persons below the tax threshold--basically those below the poverty line. These are the people whom the credit is intended to help.

The refundable credit approach is used by Hawaii, Massachusetts, New Mexico, Vermont, and Wyoming to lessen the burden of the sales tax. The credit system has been used in five other states to offset retail sales tax liability, but was replaced by a food exemption, apparently not because the system did not function well, but primarily because a food exemption had greater political appeal.

(2) Alternatively, it would be possible to alleviate the value-added tax on a necessary level of consumption by providing a system of refunds independent of the income tax. Kansas follows this approach, even though it has an individual income tax. A form separate from the income tax return is used to apply for the rebate. South Dakota, which does not have an income tax, uses this procedure as well.

Most of the state reimbursement systems apply to all persons, but some are restricted to the elderly. South Dakota, for example, restricts the refunds to persons 65 or older and to the disabled. Wyoming has similar restrictions. The state systems also differ in whether all persons receive the credit regardless of income, or only those below certain income levels. New Mexico, and, in the past, Colorado, Indiana, and Nebraska provided a flat credit for all individuals. Other jurisdictions either phase the credit out at income levels above a specified figure, or eliminate it at a given income level without a phaseout. In Hawaii, for example, the full credit ($48 per person in 1983) is given to persons with adjusted gross income under $5,000, but it is phased out between $5,000 and $20,000 of income in 10 intermediate steps.

Although it is by no means a problem-free solution, the reimbursement approach would avoid many of the problems that arise with the zero rating of commodities and services. If the reimbursement were targeted at the poverty level of income, most of the tax burden on essential consumption could be removed from persons in the lowest income groups, not merely a portion of it. To the extent that low-income individuals qualifying for the credit have consumption expenditures in excess of the poverty level of income in a given year, they would still bear some tax burden. If this is considered to be unacceptable, the reimbursement amount could be increased somewhat. From a budgetary perspective, the money necessary to pay for the reimbursement can be viewed as reducing the net amount of revenue generated by the value-added tax. If the reimbursement were phased

out, as income rises, the loss of tax revenue at the upper income levels would be avoided; if it were not phased out, the revenue loss would be roughly equivalent to that from zero rating food, new housing, prescription drugs, energy, and water and sanitation services. If the reimbursement were available to everyone, it would absorb about 25 percent of the revenue from a comprehensive value-added tax, as defined in Chapter 7. If it were phased out between the poverty level of income and 150 percent of that level, it would absorb only about 5 percent of the revenue. This is much cheaper than zero rating of essential commodities, or even indexing transfers. Though the reimbursement approach would avoid the compliance and audit problems created by zero rating of necessities, there are several issues that must be resolved.

(1) The amount of credit or refund to be granted must be determined. The poverty level of income for a family of four is estimated at $12,612 in 1988. (As explained in Chapter 9, 1988 is probably the first full year for which a value-added tax could be effective.) This level of income, in other words, would be necessary to finance the consumption to sustain a minimum standard of living. Since housing rents, medical and dental expenditures, and urban transportation, as well as other consumer expenditures, would not be included under even a comprehensive value-added tax base, about 77 percent of consumer expenditures would actually be subject to tax. For a family of 4, a credit of about $971 would be needed to remove the burden of a 10 percent value-added tax from essential consumer expenditures. The credit would be equal to the poverty level of income ($12,612) times the proportion of total consumption subject to the value-added tax (77 percent) times the tax rate (10 percent). A credit of about $325 for the household head plus $216 for each dependent (or two-thirds of the amount for the household head) would provide about the right measure of relief for the average four-person family.

(2) An adjustment must be made for the number of dependents. With the credit illustrated here, the additional amount for each dependent would be less than the primary amount, under the presumption that each additional member of the household would add less than a proportionate amount to the living expenses of the household and thus to the value-added tax burden. The simple credit illustrated here is based on the assumption that the consumption expenditures of each additional household member are about two-thirds those of the household head. Alternatively, an entire schedule of credits could be constructed based on the poverty levels of income for each family size or based on a structure similar to that of the zero bracket amounts and dependent exemptions proposed in Volume 1, Overview, for the income tax.

(3) A flat credit or refund without a phaseout would be simpler, but, as indicated above, would have a very substantial budgetary effect. If the credit or refund is phased out at higher income levels, questions will arise over the appropriate concept of income on which to base the phase-out. Logically, the figure should include adjusted gross income for Federal income tax purposes plus income

excluded from the Federal income tax, such as interest on state and local bonds and the untaxed portion of social security benefits. (A portion of social security benefits is now subject to Federal income tax if income exceeds certain levels.) Transfer payments and food stamps should also be included. Using a definition of income different from the definition for tax purposes, however, would be controversial and would cause complexity.

(4) The appropriate filing unit must also be determined under a reimbursement system. Ideally, it should be the consumption unit, usually a family. If the credit or refund for each additional household member is smaller than the amount for the household head, as suggested here, there would be a "marriage penalty." But it may be overly generous to allow the full credit or refund for two members of the same household. Some groupings of people are substantially different from the traditional family unit. For example, a group of single adults each of whom may file an income tax return, might be living together. Individually they would claim a larger total credit or refund than if a single return were filed for the household group, particularly if the credit or refund has a phaseout.

Several operational problems would arise under a reimbursement system:

(1) Additional income tax returns would be filed, or new refund requests would have to be processed by a new bureaucracy if the system is not integrated with the income tax. If the system were administered through income tax, the number of income tax returns would increase, as shown by state experience with credits designed to offset the retail sales tax. When the reimbursement provision was introduced at the state level, the number of tax returns increased by between 5 percent (Nebraska) and 15 percent (Massachusetts). A similar pattern developed in Canada, where the availability of refundable credits for dependent children increased the number of individuals filing tax returns to 130 percent of the labor force. Very simple returns could be provided for use by persons not otherwise required to file income tax returns. If refund requests were handled separately from the income tax, the number of the requests would depend upon eligibility.

(2) Some eligible individuals may fail to file to obtain the refund of value-added tax. Federal experience with the earned income credit indicates that about 8 percent of those eligible fail to claim the credit; in these cases, the Internal Revenue Service recomputes individual tax liabilities to allow for the credit, issuing a refund where necessary. The problem would be somewhat different under the value-added tax credit. Whereas the IRS can identify those who file returns that have not claimed an earned income credit for which they are eligible, the problem with the value-added tax credit would be to identify those who are eligible but file no income tax return. This problem has arisen in the states, and a number of reasons have been identified for it: lack of knowledge of the system; unwillingness to take the trouble; fear that filing may lead to questions about actual income and why income tax returns had not been filed. But, with

adequate publicity and the availability of relatively simple returns, this should not be a serious drawback, as the Canadian experience on refundable credits has shown.

(3) Minor problems have arisen in the states with some ineligible persons obtaining refunds, or persons receiving more than one refund.

(4) The availability of refunds would, under the phaseout approach, depend upon income; individuals therefore would be given an additional incentive to understate their income for income tax purposes.

Though a phaseout of the credit at higher income levels is desirable for both equity and revenue reasons, the marginal tax rate in the phaseout range would be increased over that of the income tax alone. As an individual's or family's income rose, the income would not only become subject to income tax on the extra income, but a portion of the value-added tax credit also would be lost. Consider the credit discussed here, which would be phased out between the poverty level of income and 150 percent of that level. A family of four with a poverty level of income of $12,612 would see the credit of $971 phased out by the time income rose to $18,918. Thus, if the family earns an additional $1,000 of income, its value-added tax credit would be reduced by approximately $154. The marginal tax rate associated with the declining credit on the additional $1,000 of income would be 15 percent. This would be in addition to the marginal income tax rate on that extra income. The combined marginal tax rate effects would be a disincentive to additional work effort. The effect would be even worse if the credit were equal to tax on consumption of 150 percent of poverty-level income, but phased out over the range between 100 and 150 percent of poverty-level income.

The credit intended to compensate low-income families and individuals for the value-added tax on their purchases would be over and above the earned income tax credit allowed under current law. It would be fully available to all families and individuals below the poverty level and would phase out only once income exceeds the poverty level. By comparison, the earned income tax credit is available only to those who work and have dependents. The Tax Reform Act of 1984 established that, for tax years beginning after 1984, the earned income credit increases with income until it reaches a maximum of $550 and then phases out to zero by the time income reaches $1,100. If only earned income were involved, the earned income tax credit would normally be fully phased out before the phase-out of the value-added tax credit began. This would be desirable to avoid the high marginal tax rates that would result from having both credits phase out simultaneously. If different definitions of income were used to calculate the two phase-outs, it would be possible that the two credits could phase out simultaneously. Care would be required to coordinate these two credits to avoid the adverse incentive effects of dual phase-out, as well as for administrative reasons.

Under a reimbursement approach, the value-added tax would be borne during the year on purchases of taxable goods and services, but the tax credit would not be refunded until the end of the year. By contrast, zero rating of goods and services, or the adjustment of transfer payments discussed below, would occur during the year. This problem is most pronounced when the system is first introduced and eligibility first determined, since once a reimbursement is made it can be used to fund tax liability on subsequent purchases. If, however, the delay is regarded as a serious problem, estimated payments could be made in the course of the year. The advance payment procedure is already used to provide the benefits of the earned income credit during the year. In general, this problem can be solved and is not a major objection to the plan.

Even though the earned income credit in current law is refundable to low income taxpayers, some may object that the use of a reimbursement plan to offset the value-added tax may be regarded as introducing a new family allowance or negative income tax system. A portion of the New Mexico system, which provides a tax rebate for low income individuals and families, is essentially this. Thus, it can be argued that a reimbursement of value-added tax would bring in by the back door a major change in the country's income maintenance system without adequate consideration. In other words, such a system should be debated on its own merits, rather than being introduced as an indirect consequence of a value-added tax.

The system would be similar to the refunding of the earned income tax credit under existing Federal law. Several of the states have used this approach for lessening the burden of the sales tax without kindling a debate over welfare reform. In Iowa, however, the political argument was made that the tax system was inherently undesirable for making direct money payments.

Table 8-3 and Figure 8-4 show the distributional consequences by income class of two refundable, phased-out credit plans. One would provide a credit based on the poverty level of income; the other a credit based on 150 percent of the poverty income level. Neither of the two credits illustrated here would eliminate entirely the value-added tax burden on the lowest income families, primarily because many families with income at or near the poverty level in a particular year have consumption expenditures in excess of that income. A credit based on an amount in excess of the poverty level might be justified on the basis of consumption exceeding income at the low-income levels. Each of the credits illustrated here would be phased out between the poverty level of income and 150 percent of that level. The last column of Table 8-3 also shows the budgetary effect of each of the credits as a percent of the revenue from the broad-based value-added tax. As noted above, the budgetary costs associated with this alternative are much lower than those for either zero rating essential purchases or for indexing transfers.

Table 8-3
Distribution of Value-Added Tax Burden:
Broad-Based Tax and the Effect of Income-Based Credits
(Tax Rate of 10 Percent)

	Family Economic Income Class (in thousands of dollars) 1/								
	$0 - 10	10 - 15	15 - 20	20 - 30	30 - 50	50 - 100	100 - 200	200 & over	Relative cost of credits 2/
	(Value-Added Tax Paid as a Percent of Economic Income)								
Value-added tax (VAT) on broad base without adjustment of indexed transfers	14.2	9.2	7.5	6.1	5.0	3.9	3.0	1.8	--
Alternatives:									
1. VAT on broad base without adjustment of indexed transfers and with refundable phased-out credit based on 100% of poverty-level income (low credit)	10.5	7.8	6.7	5.8	4.9	3.9	3.0	1.8	4.8
2. VAT on broad base without adjustment of indexed transfers and with refundable phased-out credit based on 150% of poverty-level income (high credit)	8.7	7.1	6.3	5.6	4.8	3.9	3.0	1.8	7.2

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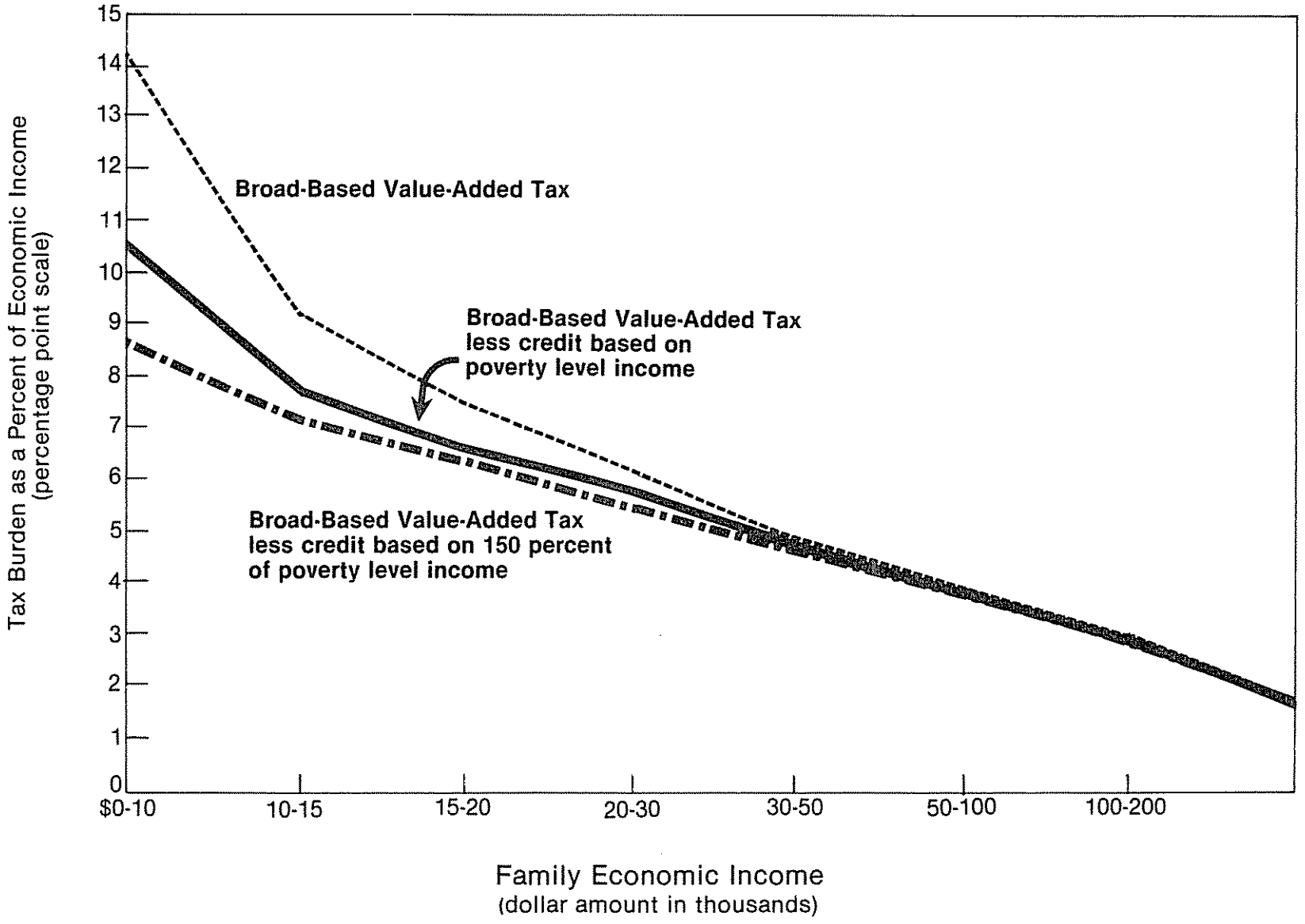
1/ Restricted to families with nonnegative income.

2/ The cost of each credit is expressed as a percentage of the revenue from a value-added tax on the comprehensive base (as described in Chapter 7) at 1988 levels.

Figure 8-4

EFFECT OF INCOME BASED CREDITS ON THE DISTRIBUTION OF VALUE-ADDED TAX BURDEN

(Tax Rate of 10 Percent)



D. Personal Exemption Value-Added Tax

As explained in Chapter 4, a personal exemption value-added tax would be substantially different from a conventional value-added tax. It would resemble, at first glance, a flat-rate income tax, but, in effect, could be regarded as a consumption tax of the value-added type, at least in terms of its base, with a personal allowance and exemptions to lessen the burden on the poor and the regressivity of the tax. As with the credit alternatives, the personal exemption approach probably would be in lieu of any indexing of transfers.

Under this personal exemption value-added tax, a tax would be levied, at a flat rate, on two forms of income:

(1) For individuals, wages, salaries, and pensions would be the only types of income subject to tax. The tax would be withheld by employers and pension payers, and paid to the IRS. Individuals would be given an allowance and personal exemptions, related to the number of dependents, and the amount of tax withheld by employers would be adjusted in terms of the allowance and exemptions. The personal allowance and exemptions would apply only to labor income; they would not be available with respect to the receipt of capital income.

(2) For all business enterprises, proprietorship, partnership, and corporate, business income would be taxed at the same rate as income of individuals. In calculating taxable business income, deductions would be allowed only for wages and salaries taxable to employees, for purchased inputs, and purchases of capital equipment. Because capital equipment purchases would be deductible, the personal exemption value-added tax closely resembles a consumption-type value-added tax, though with a feature that reduces regressivity and the absolute burden on the poor. But this alternative would only reduce the burden on low income individuals and families receiving labor or pension income. Thus, those dependent on income from capital, such as retired persons, would not be aided by the personal exemptions, nor would the unemployed be helped.

IV. Summary

As illustrated in Table 8-1 and Figure 8-1, a broad-based value-added tax, like any general sales tax, would be regressive relative to current annual income and would place a substantial absolute burden on the lowest income groups. It is commonly agreed that any viable proposal for a value-added tax must address these problems.

Families with economic incomes below $10,000 receive over half of their income in the form of indexed transfer payments, such as social security payments and food stamps. These tranfers would increase automatically to reflect the effect of the value-added tax on prices; thus indexing would lessen the burden of the tax on lower income families. Nonindexed transfers, which 2 million families receive, could be adjusted, if necessary, but this would have budgetary effects as well as ramifications for Federal-state financing of some of those

nonindexed transfers. Approximately 2 million of the 14 million families with economic incomes below $10,000 do not receive any transfer payments, either indexed or nonindexed. These families would not be affected by any adjustment of transfer payments.

An alternative for making a value-added tax more acceptable in terms of its burden distribution, attractive from both an economic efficiency and a revenue and budgetary standpoint, would be to provide a refundable credit against income tax that was phased-out as income increased above the poverty level. A properly designed credit could remove the burden of the tax on consumption equal to the poverty level of income and would lessen the regressivity of the tax. It would be much cheaper than either indexing transfer payments or zero rating of certain commodities; the benefits of these two alternatives would go to families in all income classes, not just those at the lowest levels. An important objection to the credit alternative is that it may be viewed as involving the introduction of a new family allowance as a by product of the value-added tax and without direct public debate on welfare reform.

An alternative to a refundable credit is zero rating of expenditures on food, prescription drugs and medicines, household energy, and water and sanitation services. This has many disadvantages, particularly the loss of revenue from those with income above the poverty level and operational and compliance problems. To attempt to extend the zero rating beyond these categories of expenditure would compound the operational problems and the revenue loss. The alternative of a personal exemption value-added tax would only help those receiving labor or pension income.

Table 8-4 summarizes the distributional and revenue consequences of the alternatives presented in this chapter: (1) automatically-indexed transfer payments; (2) zero rating of food; (3) zero rating of food, new housing, prescription medicine, household energy, and water and sanitation services; and (4) refundable, phased-out credits based on 100 and 150 percent of the poverty level of income. An important conclusion is that either the transfer payment or credit alternative would substantially reduce the burden of the tax on those families with economic incomes below $10,000, but with much smaller revenue consequences than the zero rating of essential commodities. This result is shown in the last column of the table.

Table 8-4
Distribution of Value-Added Tax Alternatives as a Fraction
of Economic Income by Income Class
(Tax Rate of 10 Percent)

	Family Economic Income Class (in thousands of dollars) 1/								
	$0 - 10	10 - 15	15 - 20	20 - 30	30 - 50	50 - 100	100 - 200	200 & over	Relative cost of alternatives 2/
	(Value-Added Tax Paid as a Percent of Economic Income)								
Value-added tax (VAT) on broad base without adjustment of indexed transfers.....	14.2	9.2	7.5	6.1	5.0	3.9	3.0	1.8	--
Alternatives:									
1. VAT on broad base with adjustment of indexed transfers.....	9.6	6.9	6.0	5.2	4.5	3.6	2.9	1.8	11.0
2. VAT on broad base without adjustment of indexed transfers and with food prepared at home zero rated.....	11.0	7.3	6.0	5.0	4.1	3.3	2.7	1.8	14.5
3. VAT on narrow base without adjustment of indexed transfers 3/....	8.9	5.9	4.8	4.1	3.3	2.7	2.3	1.7	28.8
4. VAT on broad base without adjustment of indexed transfers and with refundable phased-out credit based on 100% of poverty-level income (low credit).....	10.5	7.8	6.7	5.8	4.9	3.9	3.0	1.8	4.8
5. VAT on broad base without adjustment of indexed transfers and with refundable phased-out credit based on 150% of poverty-level income (high credit).....	8.7	7.1	6.3	5.6	4.8	3.9	3.0	1.8	7.2

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1/ Restricted to families with nonnegative income.

2/ The cost of each alternative is expressed as a percentage of the revenue from a value-added tax on the comprehensive base (as described in Chapter 7) at 1988 levels.

3/ Narrow base provides for zero rating expenditures on home-prepared food, new housing, prescription drugs and medicines, household energy, and water and sanitation services.